

*These Kinks for Your Car May Come in Handy*

# If You're Stuck in the Mud

*Or if You Break an Axle, There's a Simple Way Out of the Emergency—Ideas Which, if Heeded, Make Hard Jobs Easy*

ONE man can pull a car out of a bad mud hole with a rope, a stake driven into the ground, and a wooden pole such as a fence post or a limb of a tree. Fig. 1 shows how it is done. The forked stick which translates the pull into upward motion is not absolutely necessary, but will help a good deal.

Tie one end of the rope to the car axle and tie the other end to the stake, leaving plenty of slack. Now pass the rope loosely around the pole a couple of turns, insert a stout stick under the part of the rope leading to the car, and pass one end of the stick back of the pole. The stick forms a lever that will multiply your pulling force many times. The smaller the pole the greater the leverage.

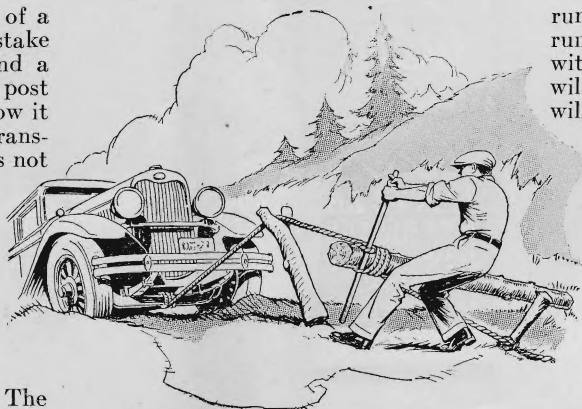


Fig. 1. How an emergency lever can be improvised to enable one man to pull a car out of the mud.

runs the oil pressure up to the regular running point. If anything goes wrong with the oiling system, the gage pointer will touch one of the fingers and the light will flash a warning.

## A Handy Jack Base

YOU can simplify the problem of slipping the jack under the rear axle by making the folding base for the jack, shown in Fig. 3. Cleats hold the jack in place.

The length of the base can be made to suit the car and the hinges can be located to make the base fold into the tool box.

## Cotter Pin Extractor

THE design for a simple, homemade cotter pin extractor that will pull the tightest pin with ease is shown in Fig. 4. A metal collar is welded near one end of a piece of drill rod. Then a sliding iron weight is fitted to the rod and the other

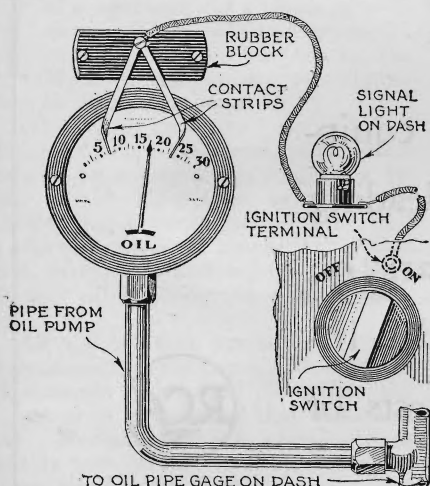


Fig. 2. A warning signal light, wired as shown in this diagram, may save damage to your motor.

## Oil Failure Warning Light

WHILE the oil gage on the dash indicates plugged oil pipes by registering excessive pressure, or oil-pump failure by a low pressure reading, you may not happen to look at the gage. Figure 2 shows how to install an electric indicator lamp that will immediately call your attention to any oil failure in case you do not notice the warning of the oil gage.

Procure an extra oil gage and mount it on the back of the dash. Remove the glass. Mount a fiber or rubber block just above the gage and on it fit a couple of light brass fingers arranged to make contact with the gage pointer. The proper settings will, of course, depend on the characteristics of your particular car.

Wire a dash indicator lamp as shown. When the ignition is turned on the bulb will light until the starting of the motor

## Ten Dollars for an Idea!

THIS month's \$10 prize goes to J. L. Longino, of Pine Bluff, Ark., for his suggestion of the handy jack base shown in Fig. 3. Each month POPULAR SCIENCE MONTHLY awards a prize of \$10, in addition to regular space rates, for the most useful ideas for motorists. Other contributions are paid for at usual rates. Address the Technical Editor, POPULAR SCIENCE MONTHLY, 250 Fourth Avenue, New York.

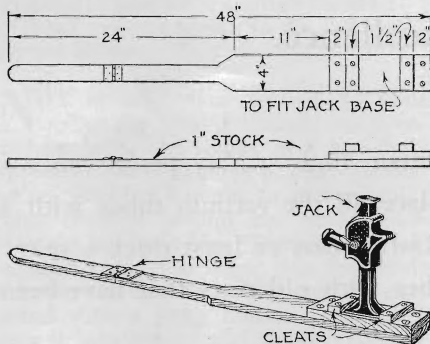


Fig. 3. It's simple to build this folding jack base which simplifies the otherwise awkward job of slipping the jack under the car's rear axle.

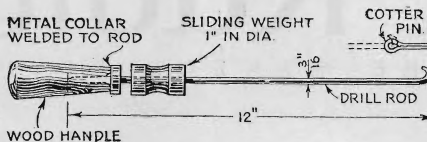


Fig. 4. With the hook inserted in the cotter pin eye, forcing the weight back pulls out the pin.

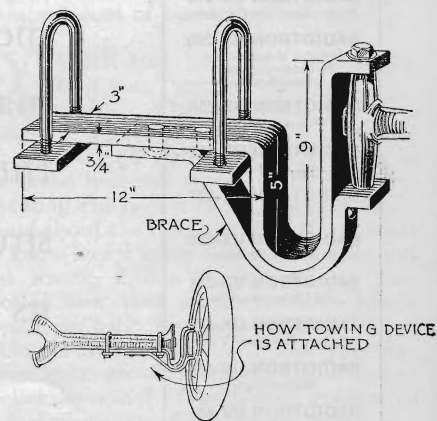


Fig. 5. An emergency towing axle made from two U-bolts, some strap iron, and a front axle.

end of the rod is pointed and bent into a hook. To use, hook into the eye of the cotter pin and move the sliding weight forcibly against the handle. A few hard blows are generally sufficient to remove the most stubborn cotter pin.

## A Towing Axle from Scrap

TWO U-bolts, some pieces of strap iron, and a front axle can be fitted together to form the emergency towing axle shown in Fig. 5. If the car axle has broken off at the wheel, this auxiliary axle can be bolted to the axle housing, making it possible to tow the car to a service station where the broken axle can be replaced.